CLAIMS

We claim:

1. In a rack structure comprising rectangular vertical posts, said posts with equally spaced apertures on the vertical post front face, and cross members having end brackets, said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, an improved right or left vertical upright comprised of two vertical posts with welded support braces, said distance between the in-turned lip surface of the front and rear vertical posts equivalent to an integral number of a particular type of dimensional lumber pieces times the width dimensions defined by the American Lumber Standard, and some tolerance to cover wood moisture content and board warp.

2. In a rack structure comprising rectangular vertical posts, said posts with equally spaced apertures on the vertical post front face, and cross members having end brackets, said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, an improved cross member for creating a workbench like continuous work surface that can extend between vertical posts, cross member comprising a formed steel structure having an outer wall, upper surface, inner wall, upper lip, lower lip, and cross member bracket; said cross member upper surface extended inward to the center of the rack, said distance equal within some reasonable manufacturing tolerance to the vertical post side wall width, said distance set in order to minimize the gap between the cross member inner wall and the dimensional lumber laid side by side, parallel to cross members, and spanning between the front and rear vertical posts.

3. In a rack structure comprising rectangular vertical posts, said posts with equally spaced apertures on the vertical post front face and cross members having end brackets, said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, an improved cross member for creating a workbench like continuous work surface that can extend between vertical posts, said cross member comprising a

formed steel structure having an outer wall, upper surface, inner wall, upper lip, lower lip, and cross member bracket; said cross member bracket wall material removed in region above upper lip and not extending beyond cross member inner wall so dimensional lumber laid side by side, parallel to cross members, and spanning between front and rear vertical posts can butt up to the vertical post in-turned lip surface.

4. In a rack structure comprising rectangular vertical posts, said posts with equally spaced apertures on the vertical post front face, and cross members having end brackets, said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, an improved cross member for creating a workbench like continuous work surface that can extend between vertical posts, cross member comprising a formed steel structure having an outer wall, upper surface, inner wall, upper lip, lower lip, and cross member bracket, said lower lip constituting a flange extending from outer wall and positioned below upper lip to a depth equivalent within some manufacturing tolerance to the American Standard Lumber thickness for a particular type of dimensional lumber boards, said lip enabling dimensional lumber to be used as a support brace spanning horizontally between front and back cross members.

5. In a rack structure comprising rectangular vertical posts, said posts with equally spaced apertures on the vertical post front face, and cross members having end brackets, said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, an improved cross member for creating a workbench like continuous work surface that can extend between vertical posts, cross member comprising a formed steel structure having an outer wall, upper surface, inner wall, upper lip, lower lip, and cross member bracket; said cross member upper and lower lip containing a pattern of holes to capture and prevent splitting of a particular dimensional lumber type and said pattern repeated periodically throughout the length of the lip on the cross member.

6. In a rack structure comprising rectangular vertical posts and having vertical posts with equally spaced apertures on the vertical post front face and cross members having end brackets, with said brackets containing rivets or some other protrusion equally spaced for interconnecting with apertures on the vertical post front face, a right angle brace attached from front cross member bracket side wall to rear cross member side wall to prevent disengagement of cross members, said right angle brace flange positioned at the cross member upper lip height to provide end support for dimensional lumber spanning between vertical posts.

7. A right angle brace as in claim 6, wherein the right angle brace flange contains a pattern of holes to capture and prevent splitting of a particular dimensional lumber type and said pattern repeated periodically throughout the length of the flange.